REMARKS

Claims 1-15 are pending in the present application. Claims 1-15 are rejected.

Claim Rejections under 35 U.S.C. §102

Claims 1, 3, 4 and 7 are rejected under 35 U.S.C. §102(b) as being anticipated by JP57172374 A to Matsuyama.

Applicants respectfully disagree with the rejection. Applicant notes that the present invention comprises a fixing roller comprising a core, a primer layer applied on the periphery of the core, and a fluororesin top layer applied on the periphery of the primer layer, wherein glass particles are mixed into at least one of the primer layer and the top layer in weight ratio of less than 3% of the top layer..

The glass fiber in Matsuyama is contained 3% or more while glass particles in the present invention, as herein amended, are contained 1-3 %. Applicant submits that there is no teaching in Matsuyama for a roller containing glass particles in an amount of less than 3%. Because at least this limitation is not taught by the cited reference, Applicant submits that Matsuyama does not anticipate the presently claimed invention.

Claim Rejections under 35 U.S.C. §103

Claim 2 is rejected under 35 U.S.C. §103(a) as being unpatentable over either U.S. Patent No. 5,547,742 to Satoh et al., or Matsuyama. The Examiner asserts that having the glass particles mixed only to the primer layer is a matter of design choice.

In response to Applicant's arguments that Satoh et al. does not teach a fluororesin because the fluorosilicone rubber of Satoh et al. is not itself a fluororesin, the Examiner notes that the claims

do not preclude other elements from being included with the fluororesin. Furthermore, the claims are not only limited to a "fluororesin itself".

Applicant notes that the Examiner has apparently characterized the claimed invention as if it claimed "a layer comprising fluororesin", rather than "a fluororesin layer" as presently claimed. Applicant notes further that while Satoh et al. uses a rubber roller, the present invention does not use rubber at all.

Applicant notes that the present invention comprises a fluororesin layer. Conversely, in Satoh et al. the term "fluororesin" appears in col. 9, line 62, but the description: "fluorosilicone rubber containing 20-40 wt % of fluororesin" at lines 59 et seq. clearly indicates that a resilient layer is placed around the metal core shaft wherein at least the surface layer part of the resilient layer comprises "fluorosilicone rubber containing 20-40 wt %-of-fluororesin." This is not a fluororesin layer as in the claimed invention. The roller disclosed in Satoh et al. is a rubber roller or resilient roller, which differs from the presently invented roller comprising "a fluororesin top layer," which does not have such resiliency.

Satoh et al. also discloses "a filler." However, the filler is an ingredient of the fluorosilicone rubber (see col. 9, lines 63-65), but not an ingredient of "fluororesin." The filler is mixed into the fluorosilicone rubber to give sufficient strength because the fluorosilicone rubber has a problem in its strength; fluororesin does not have this problem or need.

Applicants note that Satoh et al. mentions glass fiber as one of the examples of the filler. It should be noted, however, that the "fibers" of Satoh et al. are different from "particles" in the present invention. The Cambridge International Dictionary of English defines "fiber" as "any of the thread-

like parts while it defines "particle" as "an extremely small piece of matter. In Satoh et al., fibers are mixed to increase the strength of the rubber, because the rubber of Satoh et al. has a need for improved strength. The filler must be fibers to increase the strength of the rubber, i.e., the objective will not be achieved by glass particles. Thus, the glass fibers of Satoh et al. are different from the glass particles of the present invention in the structure and function.

Furthermore, for the required strength-enhancement, Satoh et al. requires that the filler must be blended in an amount of at least 10% of the weight of the resin layer, or a satisfactory reinforcing effect will not be obtained (column 3, lines 51-67). However, the claimed invention, which is directed to a completely different effect than Satoh et al., requires less than 3% weight ratio of glass particles. Satoh et al. teaches that such an amount of filler would not function, and therefore teaches away from the presently claimed amount of filler. Therefore, Applicants submit that one would neither turn to Satoh et al. nor copy the teachings of Satoh et al. and achieve the present invention.

Claims 5, 6 and 9-15 are rejected under 35 U.S.C. §103(a) as being unpatentable over Satoh et al. in view of Yakushiji (JP 58017872). The Examiner asserts that it would have been obvious to have provided the invention of Satoh et al. with glass particles mixed into the primer layer, in light of the teaching of Yakushiji, in order to reinforce the primer layer.

Applicant maintains that Yakushiji would not give suggestions to one skilled in the art of fusion rollers, because Yakushiji is directed to brittle paint films and the problems associated with preventing peeling of the brittle paint layers. Yakushiji is directed to the problem of enhancing **adhesion** via the use of the glass particles, rather than enhancing **releasability** via the use of glass particles. Therefore, there is no suggestion to use glass particles from this reference. Furthermore,

as noted above, Applicant submits that Satoh et al. does not provide teachings for the present invention.

In view of the accompanying amendment and remarks, Applicant submits that claims 1-15 are in condition for allowance. Applicant earnestly requests such action at an early date.

If the Examiner believes that this application is not now in condition for allowance, the Examiner is requested to contact Applicant's undersigned attorney to arrange for appropriate disposition of this case.

In the event that this paper is not timely filed, Applicant respectfully petitions for an appropriate extension of time. Please charge any fees for such an extension of time and any other fees that may be due with respect to this paper to Deposit Account No. 01-2340.

Respectfully submitted,

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MARKED UP VERSION SHOWING CHANGES MADE

IN THE CLAIMS:

Please amend claim 1 as follows:

1. (Amended) A fixing roller comprising:

a core;

a primer layer applied on the periphery of said core; and

a fluororesin top layer applied on the periphery of said primer layer,

wherein glass particles are mixed into at least one of said primer layer and said top layer; and wherein a ratio of said glass particles to the top layer is a weight ratio of less than 3%.